



# HindIII Digestion Protocol



# HindIII digestion

## Introduction

To achieve our goal of performing an in vitro transcription, we decided to use the HindIII digestion. We followed the instructions of the in vitro transcription kit from ThermoFisher.

## Materials

- › Cuts smart
- › Hind III
- › EDTA
- › Na acetate
- › Ethanol

## Procedure

### Linearization with Hind III Digestion restriction enzyme

1. **Linearization** with **Hind III Digestion** restriction enzyme downstream of the insert to be transcribed.

1. **gRNA plasmids** using Hind III choose 2 plasmids

2. **Reaction:**

- 17 uL plasmid
- 2 uL cuts smart
- 1 uL Hind III
- Total Solution = 20 uL

2. **Terminate** restriction digest

1. **Add** 1/20th volume 0.5 M **EDTA**

2. 1/10th volume of 3 M **Na acetate** or 5 MNH4 acetate

3. 2 volumes of **Ethanol**

4. **Mix well** and chill at -20°C for at least 15 min. Then **pellet** the DNA for 15 min in a microcentrifuge at top speed.

5. **Remove** the supernatant, re-spin the tube for a few seconds, and remove the residual fluid with a very fine-tipped pipet.

6. **Resuspend** in dH2O or TE buffer at a concentration of 0.5-1 µg/µL.

3. **Run a gel**

## Bibliography

1. (N.d.-f). Retrieved October 19, 2021, from ThermoFisher.com website:  
[https://tools.thermofisher.com/content/sfs/manuals/1330M\\_G.pdf](https://tools.thermofisher.com/content/sfs/manuals/1330M_G.pdf)